SEQUENCE LISTING

(1) GENERAL INFORMATION:

    (i) APPLICANT: Behan, Dominic P.
             Chalmers, Derek T.

    (ii) TITLE OF INVENTION: A Method of Identifying Modulators of
        Cell Surface Membrane Receptors Useful in the Treatment of
        Disease

    (iii) NUMBER OF SEQUENCES: 26

    (iv) CORRESPONDENCE ADDRESS:
        (A) ADDRESSEE: Arena Pharmaceuticals, Inc.
        (B) STREET: 6166 Nancy Ridge Drive
        (C) CITY: San Diego
        (D) STATE: CA
        (E) COUNTRY: USA
        (F) ZIP: 92121

    (v) COMPUTER READABLE FORM:
        (A) MEDIUM TYPE: Floppy disk
        (B) COMPUTER: IBM PC compatible
        (C) OPERATING SYSTEM: PC-DOS/MS-DOS
        (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

    (vi) CURRENT APPLICATION DATA:
        (A) APPLICATION NUMBER: US
        (B) FILING DATE: 14-APR-1998
        (C) CLASSIFICATION:

    (viii) ATTORNEY/AGENT INFORMATION:
        (A) NAME: Burgoon, Richard P.
        (B) REGISTRATION NUMBER: 34,787

    (ix) TELECOMMUNICATION INFORMATION:
        (A) TELEPHONE: 619-453-7200
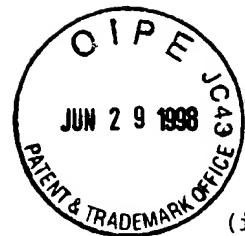   (B) TELEFAX: 619-453-7210

(2) INFORMATION FOR SEQ ID NO:1:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 25 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

    (ii) MOLECULE TYPE: peptide

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

```
Val Tyr Ala Gly Ile Leu Ser Tyr Arg Val Gly Phe Phe Leu Phe Ile
1               5                   10                  15

Leu Val Val Ala Ala Val Thr Leu Cys
            20                  25
```

(2) INFORMATION FOR SEQ ID NO:2:

   (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 7 amino acids
      (B) TYPE: amino acid
      (C) STRANDEDNESS:
      (D) TOPOLOGY: not relevant

  (ii) MOLECULE TYPE: peptide

  (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

```
Thr Gln Leu Pro Tyr Asp His
1               5
```

(2) INFORMATION FOR SEQ ID NO:3:

   (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 9 amino acids
      (B) TYPE: amino acid
      (C) STRANDEDNESS:
      (D) TOPOLOGY: not relevant

  (ii) MOLECULE TYPE: peptide

  (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

```
Phe Cys Ser Arg Glu Lys Lys Ala Ala
1               5
```

(2) INFORMATION FOR SEQ ID NO:4:

   (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 54 amino acids
      (B) TYPE: amino acid
      (C) STRANDEDNESS:
      (D) TOPOLOGY: not relevant

  (ii) MOLECULE TYPE: peptide

  (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

```
Arg Val Phe Gln Glu Ala Lys Arg Gln Leu Gln Lys Ile Asp Lys Ser
1               5                   10              15

Glu Gly Arg Phe His Val Gln Asn Leu Ser Gln Val Glu Gln Asp Gly
            20                  25                  30

Arg Thr Gly His Gly Leu Arg Arg Ser Ser Lys Phe Cys Ser Arg Glu
            35                  40                  45

Lys Lys Ala Ala Lys Thr
            50
```

(2) INFORMATION FOR SEQ ID NO:5:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 10 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

    (ii) MOLECULE TYPE: peptide

    (ix) FEATURE:
        (A) NAME/KEY: Peptide
        (B) LOCATION: one-of(7)
        (D) OTHER INFORMATION: /product= "OTHER"
/label= Xaa
/note= "Xaa is an amino acid other than Ala. Most preferably,
Xaa is Glu."

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

```
Ser Arg Glu Lys Lys Ala Xaa Lys Thr Leu
1               5                   10
```

(2) INFORMATION FOR SEQ ID NO:6:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 72 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

    (ii) MOLECULE TYPE: peptide

    (ix) FEATURE:
        (A) NAME/KEY: Peptide
        (B) LOCATION: one-of(69)
        (D) OTHER INFORMATION: /product= "OTHER"
/label= Xaa
/note= "Xaa is an amino acid other than Ala. Most preferably,
Xaa is Glu."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

```
Arg Val Tyr Ile Val Ala Lys Arg Thr Thr Lys Asn Leu Glu Ala Gly
1               5               10              15

Val Met Lys Glu Met Ser Asn Ser Lys Glu Leu Thr Leu Arg Ile His
        20              25              30

Ser Lys Asn Phe His Glu Asp Thr Leu Ser Ser Thr Lys Ala Lys Gly
        35              40              45

His Asn Pro Arg Ser Ser Ile Ala Val Lys Leu Phe Lys Phe Ser Arg
    50              55              60

Glu Lys Lys Ala Xaa Lys Thr Leu
65                  70
```

(2) INFORMATION FOR SEQ ID NO:7:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 22 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

    (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

```
Cys Leu Asp Gly Leu Thr Thr Cys Gly Val Val Tyr Pro Leu Ser Lys
1               5               10              15

Asn His Leu Val Val Leu
            20
```

(2) INFORMATION FOR SEQ ID NO:8:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 29 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

    (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

```
Cys Arg Ile Val Cys Arg His Ala Gln Gln Ile Ala Leu Gln Arg His
1               5               10              15

Leu Leu Pro Ala Ser His Tyr Val Ala Thr Arg Lys Gly
```

20   25

(2) INFORMATION FOR SEQ ID NO:9:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 21 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

    (ii) MOLECULE TYPE: peptide

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Tyr Ile Thr Val Arg Asn Pro Gln Tyr Asn Pro Gly Asp Lys Gly Thr
1   5   10   15

Lys Ile Ile Lys Arg
        20

(2) INFORMATION FOR SEQ ID NO:10:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 21 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

    (ii) MOLECULE TYPE: peptide

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Tyr Ile Thr Val Arg Asn Pro Gln Tyr Asn Pro Gly Asp Lys Cys Thr
1   5   10   15

Lys Ile Ile Lys Arg
        20

(2) INFORMATION FOR SEQ ID NO:11:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 4 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

    (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

Val Thr Ile Leu
1

(2) INFORMATION FOR SEQ ID NO:12:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 9 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

   (ii) MOLECULE TYPE: peptide

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

Ala Leu Ile Thr Arg Thr Val Lys Lys
1   5

(2) INFORMATION FOR SEQ ID NO:13:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 24 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

   (ii) MOLECULE TYPE: peptide

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

Asn Thr Ala Gly Phe Phe Thr Val Phe Ala Ser Glu Leu Ser Ala Tyr
1   5   10   15

Thr Leu Thr Val Ile Thr Leu Glu
          20

(2) INFORMATION FOR SEQ ID NO:14:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 24 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

   (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

```
Ile Leu Leu Val Leu Phe Tyr Pro Leu Asn Ser Tyr Ala Asn Pro Phe
1               5                   10                  15

Leu Tyr Ala Ile Phe Thr Lys Ala
            20
```

(2) INFORMATION FOR SEQ ID NO:15:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 3 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

    (ii) MOLECULE TYPE: peptide

    (ix) FEATURE:
        (A) NAME/KEY: Peptide
        (B) LOCATION: one-of(1)
        (D) OTHER INFORMATION: /product= "OTHER"
/label= Xaa
/note= "Xaa is normally either Glu or Asp."

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

```
Xaa Arg Tyr
1
```

(2) INFORMATION FOR SEQ ID NO:16:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 5 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

    (ii) MOLECULE TYPE: peptide

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

```
Glu Lys Lys Ala Ala
1               5
```

(2) INFORMATION FOR SEQ ID NO:17:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 5 amino acids
        (B) TYPE: amino acid
        (C) STRANDEDNESS:
        (D) TOPOLOGY: not relevant

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
    (A) NAME/KEY: Peptide
    (B) LOCATION: one-of(1)
    (D) OTHER INFORMATION: /product= "OTHER"
/label= Xaa
/note= "First Xaa can be any amino acid, preferably Gly, Ala, or
Lys."

(ix) FEATURE:
    (A) NAME/KEY: Peptide
    (B) LOCATION: one-of(2, 3)
    (D) OTHER INFORMATION: /product= "OTHER"
/label= Xaa
/note= "Second and third Xaa denote a basic amino acid"

(ix) FEATURE:
    (A) NAME/KEY: Peptide
    (B) LOCATION: one-of(4)
    (D) OTHER INFORMATION: /product= "OTHER"
/label= Xaa
/note= "Fourth Xaa denotes a hydrophobic amino acid"

(ix) FEATURE:
    (A) NAME/KEY: Peptide
    (B) LOCATION: one-of(5)
    (D) OTHER INFORMATION: /product= "OTHER"
/label= Xaa
/note= "Fifth Xaa denotes any amino acid, preferably Lys, Arg,
Glu, or a hydrophobic amino acid with a differing side chain to
the original hydrophobic amino acid in that position."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

Xaa Xaa Xaa Xaa Xaa
1   5

(2) INFORMATION FOR SEQ ID NO:18:

(i) SEQUENCE CHARACTERISTICS:
    (A) LENGTH: 24 amino acids
    (B) TYPE: amino acid
    (C) STRANDEDNESS:
    (D) TOPOLOGY: not relevant

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
    (A) NAME/KEY: Peptide
    (B) LOCATION: one-of(9)
    (D) OTHER INFORMATION: /product= "OTHER"
/label= Xaa

/note= "Xaa is Glu, Asp, Gln, His or Lys"

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

   Val Tyr Ala Gly Ile Leu Ser Tyr Xaa Gly Phe Phe Leu Phe Ile Leu
   1   5   10   15

   Val Val Ala Ala Val Thr Leu Cys
               20

(2) INFORMATION FOR SEQ ID NO:19:

       (i) SEQUENCE CHARACTERISTICS:
           (A) LENGTH: 25 amino acids
           (B) TYPE: amino acid
           (C) STRANDEDNESS:
           (D) TOPOLOGY: not relevant

      (ii) MOLECULE TYPE: peptide

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

   Val Thr Phe Ile Ile Ala Thr Val Glu Gly Val Leu Leu Phe Leu Ile
   1   5   10   15

   Leu Val Val Val Val Gly Ile Leu Ile
               20   25

(2) INFORMATION FOR SEQ ID NO:20:

       (i) SEQUENCE CHARACTERISTICS:
           (A) LENGTH: 4 amino acids
           (B) TYPE: amino acid
           (C) STRANDEDNESS:
           (D) TOPOLOGY: not relevant

      (ii) MOLECULE TYPE: peptide

   (xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

   Gln Leu Pro Tyr
   1

(2) INFORMATION FOR SEQ ID NO:21:

       (i) SEQUENCE CHARACTERISTICS:
           (A) LENGTH: 20 base pairs
           (B) TYPE: nucleic acid
           (C) STRANDEDNESS: single
           (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

CTGGTCCTGC ACTTTGCTGC   20

(2) INFORMATION FOR SEQ ID NO:22:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 23 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

AGCATCACAT AGGTCCGTGT CAC   23

(2) INFORMATION FOR SEQ ID NO:23:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 24 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

ACCAGAAAGG GTGTGGGTAC ACTG   24

(2) INFORMATION FOR SEQ ID NO:24:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 20 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: DNA (genomic)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

GGAACGAAAG GGCACTTTGG   20

(2) INFORMATION FOR SEQ ID NO:25:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 20 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: DNA (genomic)

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

GCTGCCTCGG GATTATTTAG   20

(2) INFORMATION FOR SEQ ID NO:26:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 23 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: DNA (genomic)

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:26:

GCCTATTAGC AGGAACATGG GTG   23